

**CENTER FOR HEALTH
INFORMATION AND ANALYSIS**

POLICY BRIEF:
**PROVIDER PRICE VARIATION FOR MAMMOGRAPHY
SERVICES IN THE COMMERCIAL MARKET**

OCTOBER 2014



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INTRODUCTION

The Center for Health Information and Analysis (CHIA) reports on variation in provider prices in order to increase transparency and to monitor the cost and cost trends of the Massachusetts health care system.¹ Breast cancer is the most common cancer and the second leading cause of cancer death among women.² Mammography is a tool that can provide early detection and diagnosis of breast cancer. Mammography screenings represent one of the top ten outpatient procedures, based on total payments, among the commercially insured, indicating the significance of its high utilization and associated costs.³ In 2012, private and public payers spent approximately \$240.1 million on mammography services for Massachusetts residents: \$177.0 million from commercial insurance, \$37.2 million from Medicare,⁴ and \$25.9 million from MassHealth and Commonwealth Care.⁵

Mammography procedures involve taking X-rays of the breast and interpreting the images with the help of computer interpretation services. There are two basic types of services: screening and diagnostic mammography. Screening mammography is a preventive service that is used for early detection of breast cancer. Diagnostic mammography is used after the discovery of a lump or other symptom of breast cancer for further evaluation. The Patient Protection and Affordable Care Act (ACA) mandated that mammography screenings be provided annually, with no cost-sharing (co-payment, co-insurance, or deductible) for women aged 40 and older, as part of preventive health care services.⁶ Massachusetts has had a similar requirement since 2006, prior to the ACA mandate. In addition, Massachusetts also required that there be no cost-sharing associated with a one-time baseline screening mammogram for women between the ages of 35 and 39.⁷ However, diagnostic mammography can still impose patient cost-sharing depending on the benefit design of each individual's health insurance under both the ACA and Massachusetts requirements.

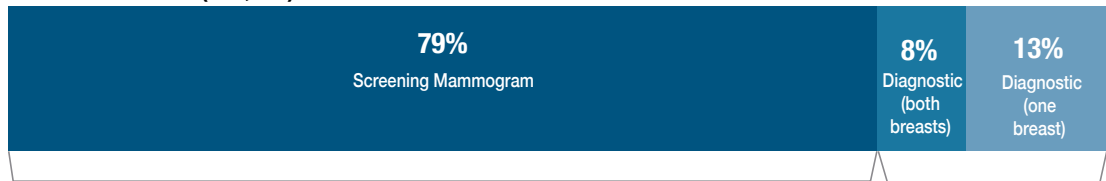
The analyses in this brief are based on calendar year (CY) 2012 medical claims for mammography services provided to Massachusetts residents covered by the three largest commercial payers in Massachusetts: Blue Cross Blue Shield of Massachusetts (BCBS), Harvard Pilgrim Health Care (HPHC), and Tufts Health Plan (Tufts), using the Massachusetts All-Payer Claims Database (MA APCD).⁸ Please see the Technical Appendix accompanying this brief for more information.

KEY FINDINGS

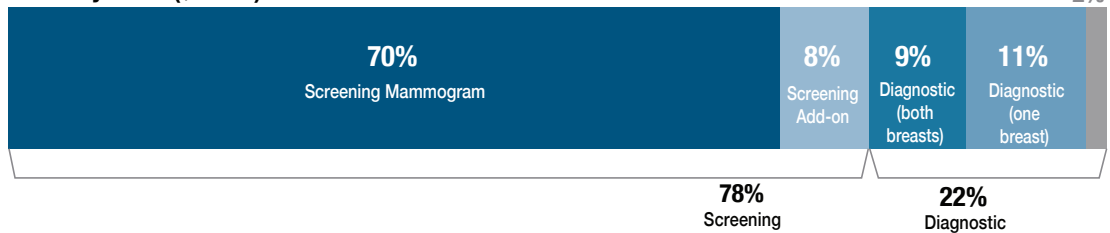
Total payments (including payments from payers and patient cost-sharing liabilities) for mammography services associated with these three commercial payers were \$132 million in 2012.⁹ About 78% of the payments for mammography (\$104 million) were for screenings and the associated add-on service for computer-aided interpretation, while the remaining 22% (\$29 million) were for diagnostic mammography and the associated add-on interpretation service (see Figure 1).

Figure 1. Volume and Payments for Screening & Diagnostic Digital Mammography, 2012

Procedure Volume (377,887)



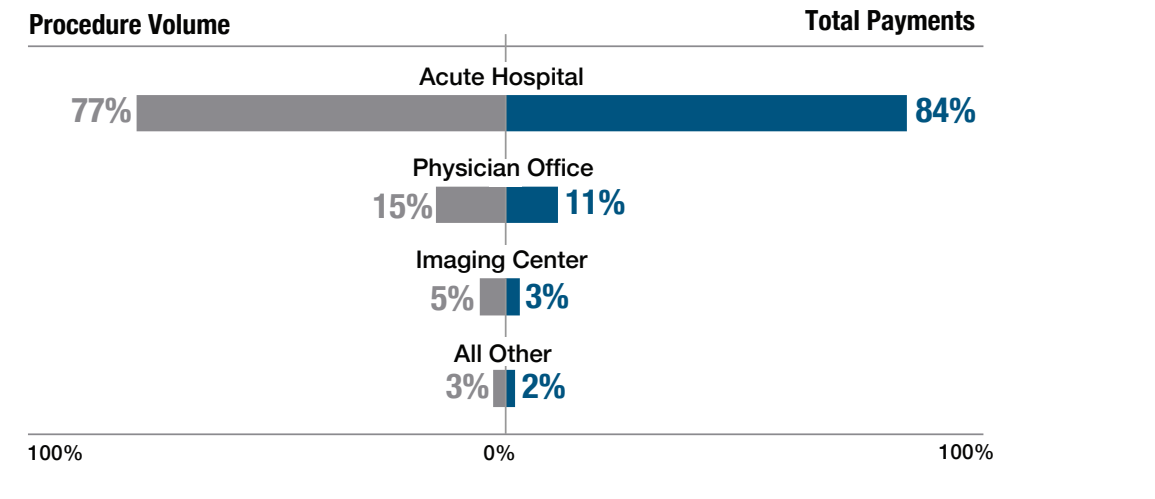
Total Payments (\$132 M)



UTILIZATION AND PAYMENTS CONCENTRATED IN ACUTE HOSPITALS

About 77% of mammography procedures were performed by acute hospitals, accounting for nearly 84% of payments (see Figure 2). About 15% of mammography procedures and 11% of payments were incurred at physician offices, and less than 6% of procedures and 3% of payments at stand-alone imaging centers.

Figure 2. Volume and Payments for Screening & Diagnostic Mammography by Provider Type, 2012

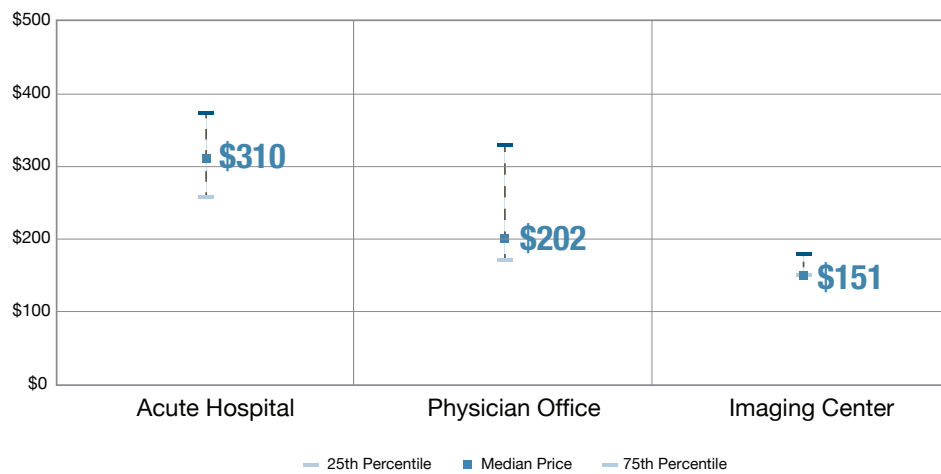


WIDE PRICE VARIATION ACROSS PROVIDERS AND BETWEEN PROVIDER TYPES

Commercial payers negotiate prices with network providers, often resulting in different price levels among providers. As these negotiations are private contractual arrangements, it is not clear to what degree individual services such as mammography are specifically addressed or are included as a component of more broadly negotiated service categories. Consistent with CHIA's previous reports on relative prices which compare provider prices of a standard set of health care services within a payer's network, there was a wide range of price variation for mammography procedures across providers.¹⁰ For screening mammography, the highest-priced provider received payments that were about 3.6 times higher than the lowest-priced provider (\$529 vs. \$146).¹¹ More than one-third of the payments (37%) went to providers with prices above the 75th percentile; all of these providers were acute hospitals. Among acute hospitals, community hospitals provided the largest proportion of volume at 63%, suggesting that a provider's location may play a significant role in provider selection by patients (please see Chart Book for further information). In general, acute hospitals had much higher prices than physician offices and stand-alone imaging centers. The median price for screening mammography among acute hospitals was \$310, which was 1.5 times higher than the median price for physician offices (\$202), and 2 times higher than the median price for imaging centers (\$151).

There was also wide price variation across providers within each provider-type category. The ratio of 75th percentile to 25th percentile prices for screening mammograms was highest for physician offices (1.9), followed by acute hospitals (1.4), and lastly imaging centers (1.2) (see Figure 3). Overall price variation among providers for diagnostic mammograms was similar to the pattern observed in screening mammography.

Figure 3. Price Variation for Screening Mammography by Provider Type, 2012



CONCLUSION

Mammography procedures were performed far more often at acute hospitals than at other types of mammography providers. For the same type of mammography procedure, there was significant price variation across provider types, and across providers within the same provider type. This suggests that there may be opportunities to lower mammography service spending by shifting utilization to lower cost providers or by payers and providers pursuing greater value in contractual price negotiations. CHIA will continue to monitor trends in utilization and price variation in mammography as well as other health care services as the Commonwealth focuses on containing costs and increasing price transparency while maintaining high quality care delivery.

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- 1 M.G.L. Chapter 12C.
- 2 Centers for Disease Control and Prevention. *Breast Cancer Statistics*. Available at <http://www.cdc.gov/cancer/breast/statistics/> (Accessed October 7th, 2014).
- 3 Based on CHIA's analysis of Calendar Year (CY) 2012 Massachusetts All Payer Claims Database (MA APCD) medical claims for the commercial members of BCBS, HPHC, and Tufts.
- 4 Data came from the MA APCD for commercial payers offering Medicare Advantage plans and combined with CHIA's estimate based on CMS Medicare Fee-For-Service Provider Utilization & Payment Data- Physician and Other Supplier Public Use File: Medicare National and State Healthcare Common Procedure Coding System (HCPCS) Aggregate Report, Calendar Year 2012. Available at: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Physician-and-Other-Supplier.html> (Accessed October 7th, 2014).
- 5 Data was provided by MassHealth for their Fee-for-Service (FFS) and Primary Care Clinician (PCC) members and combined with data from the MA APCD for commercial payers offering MassHealth managed care organization plans and Commonwealth Care plans.
- 6 Health Resources and Services Administration. *Women's Preventive Services Guidelines* Available at <http://www.hrsa.gov/womensguidelines/> (Accessed October 7th, 2014).
- 7 M.G.L. Chapter 175, Section 47G.
- 8 CHIA maintains the MA APCD pursuant to M.G.L., Chapter 12C, Section 10. Information on the MA APCD is available at www.mass.gov/chia/apcd.
- 9 Film mammography was excluded as it represents less than one percent (\$1.0M) of Massachusetts Commercial spending for the top three payers.
- 10 In this policy brief, a provider's price is defined as the payments paid to the provider, including payments from payers and patient cost-sharing liabilities. Price variation is based on the comparison of median price across providers. For each provider, the price includes the payments for facility and professional claims combined to represent one global mammography procedure. Payments for professional claims without matching facility claims are excluded and vice versa.
- 11 Range excludes Nantucket Cottage Hospital, whose median price for screening mammography was \$853.



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Publication Number 14-296-CHIA-01